SANTA CRUZ BIOTECHNOLOGY, INC.

F-Spondin (N-19): sc-49006

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

F-Spondin, also designated Spondin-1 or vascular smooth muscle growth-promoting factor, is a member of the subgroup of the thrombospondin type 1 class molecules. F-Spondin is a secreted, extracellular matrix-attached protein which patterns axonal trajectories by promoting adhesion and outgrowth of commissural axons, in addition to inhibiting outgrowth of motor axons. F-Spondin contains two conserved domains at the amino terminus, FS1 and FS2, which are regions of homology with reelin and mindin. Additionally, F-Spondin contains either six or four thrombospondin repeats (TSRs) at the carboxyl terminus, which are typical of class 2 TSRs. The F-Spondin gene is expressed in the nervous system, mainly at the embryonic floor plate and the hippocampus. F-Spondin may play a role in promoting axonal regeneration after nerve injury and in inflammatory processes in the nervous system.

REFERENCES

1. Burstyn-Cohen, T., Frumkin, A., Xu, Y.T., Scherer, S.S. and Klar, A. 1998. Accumulation of F-spondin in injured peripheral nerve promotes the outgrowth of sensory axons. J. Neurosci. 18: 8875-8885.
2. Shimeld, S.M. 1998. Characterization of AmphiF-spondin reveals the modular evolution of chordate F-spondin genes. Mol. Biol. Evol. 15: 1218-1223.
3. Tzarfaty-Majar, V., López-Alemany, R., Feinstein, Y., Gombau, L., Goldshmidt, O., Soriano, E., Muñoz-Cánoves, P. and Klar, A. 2001. Plasmin-mediated release of the guidance molecule F-spondin from the extracellular matrix. J. Biol. Chem. 276: 28233-28241.
4. Tzarfati-Majar, V., Burstyn-Cohen, T. and Klar, A. 2001. F-spondin is a contact-repellent molecule for embryonic motor neurons. Proc. Natl. Acad. Sci. USA 98: 4722-4727.
5. Feinstein, Y. and Klar, A. 2004. The neuronal class 2 TSR proteins F-spondin and Mindin: a small family with divergent biological activities. Int. J. Biochem. Cell Biol. 36: 975-980.
6. Pyle-Chenault, R.A., Stolk, J.A., Molesh, D.A., Boyle-Harlan, D., McNeill, P.D., Repasky, E.A., Jiang, Z., Fanger, G.R. and Xu, J. 2005. VSGP/F-spondin: a new ovarian cancer marker. Tumour Biol. 26: 245-257.

CHROMOSOMAL LOCATION

Genetic locus: SPON1 (human) mapping to 11p15.2; Spon1 (mouse) mapping to 7 F1.

SOURCE

F-Spondin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of F-Spondin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49006 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

F-Spondin (N-19) is recommended for detection of F-Spondin and mature Spondin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

F-Spondin (N-19) is also recommended for detection of F-Spondin and mature Spondin-1 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for F-Spondin siRNA (h): sc-60613, F-Spondin siRNA (m): sc-60614, F-Spondin shRNA Plasmid (h): sc-60613-SH, F-Spondin shRNA Plasmid (m): sc-60614-SH, F-Spondin shRNA (h) Lentiviral Particles: sc-60613-V and F-Spondin shRNA (m) Lentiviral Particles: sc-60614-V.

Molecular Weight of F-Spondin: 115 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.